

8. The magnetic head of claim 1, wherein the low dielectric material has a thickness in a range of between about 1 μm and about 100 μm .

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EXHIBIT

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1 9. The magnetic head of claim 1, wherein the low dielectric material has a
2 thickness in a range of between about 10 μm and about 50 μm .

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4 10. The magnetic head of claim 1, wherein the low dielectric material has a
5 thickness of about 20 μm .

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7 11. The magnetic head of claim 1, wherein the low dielectric material has a
8 dielectric constant of less than about 9.

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10 12. The magnetic head of claim 1, wherein the low dielectric material has a
11 dielectric constant of about 3.

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13 13. The magnetic head of claim 1, wherein the magnetic head carries a GMR
14 sensor.

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16 14. The magnetic head of claim 1, wherein the low dielectric material provides
17 a platform for the electrical contact pad.

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19 15. The magnetic head of claim 1, wherein an electrical contact pad having a
20 surface area of less than about 20 μm in order to reduce capacitance coupling with the
21 substrate.
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19. The disk drive system of claim 17, wherein the low dielectric material is configured to decrease the parasitic capacitance of the magnetic head.

21. The disk drive system of claim 17, wherein the magnetic head comprises a GMR sensor.

22. A reduced capacitance magnetic head comprising:
a substrate on which the magnetic head is formed; and
a contact pad disposed above the substrate and having a surface area less than about 20 μm in order to reduce capacitance coupling with the substrate.

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1 24. A magnetic head comprising:
2 a substrate on which the magnetic head is formed;
3 an alumina undercoat layer comprising SiO₂ formed over the substrate;
4 an electrical contact pad; and
5 a layer of alumina interposed between the electrical contact pad and the
6 alumina undercoat layer.

7
8 25. A method of reducing capacitance in a magnetic head, comprising:
9 providing a substrate;
10 providing a read/write head; and
11 isolating the read/write head from the substrate in order to reduce the
12 capacitance coupling between the read head and the substrate.
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